US006281628B1

(12) **United States Patent**

Choi et al.

(10) Patent No.: **US 6,281,628 B1**
(45) Date of Patent: **Aug. 28, 2001**

(54) **PLASMA DISPLAY PANEL AND A DRIVING METHOD THEREOF**

(75) Inventors: **Tae-Wan Choi; Seong-Ho Kang**, both of Seoul (KR)

(73) Assignee: **LG Electronics Inc.**, Seoul (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/247,866**

(22) Filed: **Feb. 11, 1999**

(30) **Foreign Application Priority Data**

Feb. 13, 1998 (KR) 1998-4346
Feb. 4, 1999 (KR) 1999-3653

(51) **Int. Cl.^{7}** **H01J 17/49**
(52) **U.S. Cl.** **313/585**; 313/586; 313/583; 313/584; 313/582
(58) **Field of Search** 313/585, 586, 313/587, 584, 583, 582

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,155,414   10/1992   Sano 315/169.4
5,736,815 * 4/1998   Amemiya 313/586

FOREIGN PATENT DOCUMENTS

63131436 A   6/1988   (JP) .

02148645 A	6/1990	(JP) .
04272634 A	9/1992	(JP) .
4280289	10/1992	(JP) .
05250992 A	9/1993	(JP) .
06044907	2/1994	(JP) .
09-160525	6/1997	(JP) .

* cited by examiner

(57) **ABSTRACT**

The present invention relates to a plasma display panel in which a plurality of row electrodes are arranged to be crossed with a plurality of column electrodes in a plurality of cells, and one row electrode is concerned in the electric discharge of two adjacent cell groups and a driving method thereof. The row electrode has a transparent electrode with a plurality of projecting electrode parts which are alternately projected upward and downward with a predetermined width along the row axis and an opaque electrode formed at the lower part of the row axis of the transparent electrode. The column electrode is arranged on the column axis of the projecting electrode part and the row electrode concerns the discharge of two adjacent column-direction cell groups by the interaction with two other row electrodes adjacent in a column direction.

8 Claims, 7 Drawing Sheets